

CLAIMS

We Claim:

1. A method for IC package production comprising  
5 the steps of:

creating a plurality of lead frames joined into a  
single lead frame panel;

attaching said lead frame panel to a removable  
support fixture;

10 installing a plurality of IC chips onto said  
plurality of lead frames;

encapsulating each of said plurality of IC chips  
in a protective housing; and

singulating said plurality of lead frames.

15

2. The method of Claim 1 wherein said  
singulating step comprises the steps of:

removing said support fixture from said plurality  
of lead frames;

20 cutting said lead frame panel into said plurality  
of lead frames; and

creating a plurality of electrical  
interconnections on said plurality of lead frames.

25

3. The method of Claim 1 wherein said attaching  
step comprises the steps of:

mounting an adhesive pad on a rigid frame such  
that said adhesive pad forms a taut surface across an  
interior opening of said rigid frame, said interior  
30 opening being larger than the border of said lead frame  
panel; and

mounting said lead frame panel on said adhesive  
pad such that said lead frame panel is completely  
within said interior opening.

35

4. The method of Claim 3 wherein said adhesive pad is constructed of single-sided sticky tape and is affixed around its border to said rigid frame.

5 5. A fixture for providing temporary support to a lead frame during an IC package manufacturing process comprising an adhesive pad attached to a rigid frame such that said adhesive pad is held in tension by said rigid frame to provide a stable support surface for  
10 said lead frame.

6. The fixture of Claim 5 wherein said adhesive pad is constructed of single-sided sticky tape.

15 7. The fixture of Claim 6 wherein said rigid frame comprises a stainless steel ring having an opening of diameter larger than said lead frame.

20 8. The fixture of Claim 5 wherein said rigid frame includes a set of positioning features for positioning and aligning said lead frame and said adhesive pad with respect to said rigid frame.

25 9. The fixture of Claim 5 wherein said adhesive pad is patterned to facilitate a subsequent manufacturing step.

30 10. A method for applying a layer of an encapsulant material over a lead frame panel populated with a plurality of IC chips comprising the step of creating an encapsulant dam around the perimeter of said lead frame panel, said encapsulant dam being a substantially rigid barrier capable of blocking the flow of said encapsulant material.

35

add  
a1

add  
D5 7